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A NEW GENUS OF ANACARDIACEAE¹

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The poorly understood species on which this genus is based seems to have been collected originally by Sessé and Moçino in Mexico. The first published description was by A. P. de Candolle (Prodromus 2: 67. 1825) under the name *Rhus Filicina*. Following the brief description he says, "dicitur Tetlazier sed non est Tetlacian Hern. mex. 153." In 1858, Turczaninow, working over the plants of Galeotti, published *Galeotti 4006A* as *Rhus potentillaefolia*. Sessé and Moçino described a plant under the name *Rhus Tetlatziam* in 1887. From the descriptions given, these three elements, *Rhus Filicina* DC., *Rhus potentillaefolia* Turcz., and *Rhus Tetlatziam* Sessé & Moç., appear to be conspecific.

This plant resembles *Rhus glabra* L. in its staghorn-like stems and deciduous leaves which are imparipinnately compound with many leaflets, but the leaves are more densely clustered near the apex and the leaflets are peculiarly rugose and crenate-lobed. The inflorescence is axillary, composing an open compound leafy panicle, unlike that of *Rhus Coriaria* L. and its immediate allies, in which it is a dense terminal thyrus. The situation of the ovary on a column is vaguely suggestive of the condition in *Anacardium*, and is found in no member of the genus *Rhus*. The *Cotinus*, *Metopium*, *Malosma*, and *Toxicodendron* elements, which are often included in *Rhus*,

¹ Issued March 20, 1937.

have essentially glabrous fruits, while in the other members of *Rhus*, such as *Rhus virens* Lindh., the fruit is covered with short simple hairs intermixed with club-shaped acid-secreting ones, never long and silky hairs as in the plant under discussion. Considering these peculiarities—the staghorn-like stems, the rugose crenate-lobed leaflets, the axillary panicles, the presence of a torus, and the long, silky pubescence on the fruit—it seems best to treat this species as constituting a monotypic genus:

ACTINOCHEITA Barkley, n. gen.

Arbuscula. Folia imparipinnata; foliolae multae sessiles. Flores in panicula patula foliosa dispositi cum foliis apparentes. Petala et sepala quinque plusminusve patula. Ovarium uniloculare in gynobase; stylus tripartitus. Drupa subaequalis; villae praelongae molles subrutiles.

Shrubs or small trees. Leaves compound, odd-pinnate; leaflets many, sessile. Flowers disposed in open, leafy, compound, axillary panicles, appearing with the leaves. Petals and sepals five, somewhat spreading. Ovary upon a column formed by the disk and partly adherent to the disk, one-celled; style three-branched. Drupe almost symmetrical, clothed with long, soft, reddish hairs.

The generic name is from ἀκτίνας = ray, and χιτών = garment, referring to the ray-like pilosity of the fruit-coat. Similar to *Rhus*, but differs in having axillary panicles, the ovary on a gynobase, long-villous fruit, and in other characters.

Actinocheita filicina (DC.) Barkley, n. comb.

Rhus Filicina DC.¹ Prodr. 2: 67. 1825.

Rhus filicina DC. in A. DC. Calq. Dess. Fl. Mex. Moc. & Sessé, t. 189. 1874; Hemsl. Biol. Cent.-Am. Bot. 1: 217. 1880.

¹ The citations, “*Rhus filicina* [Moc & Sesse,] ex DC. Prodr. ii. 67 . . . ” in Index Kewensis 2: 714. 1895, and “*Rhus filicina* Moc. & Sessé. A. De Candolle, Calq. Dess. Fl. Mex. Moc. & Sessé, t. 189 (1874).” in Index Londonensis 5: 415. 1931, are probably due to the inclusion of “(fl. mex. ic. ined.)” and “Ex fl. mex. mss. dicitur *Tetlasian* . . . ” in the original description by De Candolle (Prodromus 2: 67. 1825), a manuscript which apparently has been interpreted as being by Moçño and Sessé.

Rhus potentillaefolia Turcz. in Bull. Soc. Nat. Mosc. **31**: 469. 1858; Hemsl. Biol. Cent.-Am. Bot. **1**: 218. 1880, and **4**: 21. 1886, *in nota*; Engl. in DC. Monogr. Phaner. **4**: 383, *pl. 14, figs. 11-12*. 1883; Standl. in Contr. U. S. Nat. Herb. **23**: 669. 1923.

Rhus Tetlatziam Sessé & Moç. Pl. Nov. Esp. p. 47. 1887 [La Naturaleza II. **1**, App: 47], and ed. 2, p. 44. 1893.

Rhus tetlatziam Sessé & Moç. Pl. Nov. Esp. ed. 2, p. xi. 1893.

Bursera bipinnata (Schlecht.) Engl. in DC. Monogr. Phaner. **4**: 49. 1883, in part, as to *Rhus filicina* in synonymy²; Hemsl. Biol. Cent.-Am. Bot. **4**: 19. 1886, in part, as to *Rhus filicina* in synonymy.²

Toxicodendron potentillifolium Kuntze, Rev. Gen. Pl. **1**: 154. 1891.

Shrubs and small trees with few staghorn-like branches covered with tuberculate leaf scars; branches ash-gray, glabrous below and densely pubescent at the apex, nude at base and clothed heavily near the summit with leaves; leaves alternate, rugose, imparipinnate, 9-33 cm. long, deciduous; leaflets 13 to 29, sessile, broadly linear, to 6 cm. long, sometimes as small as .5 cm., hoary-tomentose, lighter below, with revolute margins, crenate-lobed, lobes usually cristate-pointed, apex more or less acute, base truncate; rachis naked, densely pubescent; flowers polygamo-dioecious, disposed in ascending panicles

² While there is some room for doubt in the interpretation of *plate 189* of A. De Candolle's 'Calques des Dessins, Flora du Mexique, de Moçino et Sessé' (pl. 1), the depiction of the leaves, with basal, central and terminal pinnae alike, does not seem to fit the leaves of *Bursera bipinnata* Engl., which are bipinnate except at the base of some of the central pinnae where they are tripinnate. On the other hand, my interpretation is that the leaves depicted are once-pinnate, with the veins running from the lobes and sinuses, as in the specimens of *Actinocheita filicina* examined. Of the many leaflets shown there are only three which might be considered bipinnate, and this I construe to be due to artist's "license" during the (assumedly) hurried drawing of this figure. The staghorn-like branch, smooth below except for the leaf scars, tomentose at the apex, leaves in a dense apical cluster, the pubescence on the petiole and rachis, all are characters of *Actinocheita filicina* and lend further credence to the interpretation of the figure as such.

The original description of *Rhus filicina* DC., as "*Fructus pilis violaceis hirtus*," leaves little doubt that this is the plant referred to rather than *Bursera bipinnata* which has glabrous fruits.

half as long as the subtending leaves and appearing with them; bracts linear to subrotund, persistent, pilose-hirsute; sepals 5, deltoid-lanceolate, densely pubescent; stamens with thickened filaments longer than the ovoid anthers; pistil with 3-short styles, ovary on a torus formed by the disk, 1-celled, ovule anatropous; drupe almost symmetrical, villous, clothed with long, soft, violet-red hairs (pl. 2).

In the mountains of southwest Mexico (fig. 1).



Fig. 1. Known area of distribution of *Actinocheita filicina* (DC.) Barkley. (Base map from Goode's series, courtesy of University of Chicago Press.)

TYPE: In all probability the original material on which this species was founded no longer exists; but the species is based primarily on *plate 189* of 'Calque des Dessins de la Flora du Mexique, de Moçino et Sessé,' 1874, and is typified by *Pringle 4752* (pl. 3), which is represented in the larger herbaria of America and Europe.

MEXICO: coll. of 1791, *Thaddaeus Haenke 1503* (Field Mus. 834658); GUERRERO: Acuitlapan, 1900 m., Oct. 1935, *Mrs. Gordon Abbot 11* (Gray Herb.); shrub 10 to 15 feet, mountains above Iguala, Oct. 4, 1900, *C. G. Pringle 9164* (Mo. Bot. Gard.,

Field Mus. 120458, U. S. Nat. Herb. 381912, Gray Herb.); OAXACA: Cañon del Tomellin, Estacion de Almoloyas, Sept. 29, 1907, *C. Conzatti 2019* (Field Mus. 225784, N. Y. Bot. Gard.); District of Nochixtlan, Cuesta de Henaudilla, *C. Conzatti 4247* (U. S. Nat. Herb. 1082288); Cuesta de Nochixtlan, 2000 m., May, 1899, *V. Gonzalez & C. Conzatti 937* (Gray Herb.); six miles above Domingullo, Oct. 3, 1893, *E. W. Nelson 1593* (U. S. Nat. Herb., two sheets); six miles above Domingullo, Oct. 20, 1894, *E. W. Nelson 1825* (N. Y. Bot. Gard., U. S. Nat. Herb., Gray Herb.); limestone ledges, Tomellin Cañon, July 31, 1894, *C. G. Pringle 4752* (Mo. Bot. Gard., Field Mus. 106356, N. Y. Bot. Gard., Brooklyn Bot. Gard., Philadelphia Acad. Nat. Sci., U. S. Nat. Herb. no number, 1418075, 989910, Univ. Cal. 109836, Gray Herb.); Nov. 27, 1895, *Caec. & Ed. Seler 1419* (N. Y. Bot. Gard., Gray Herb.); Rio Seco, Necaltepec, alt. 3100 ft., "Poison to the touch," September 21, 1895, *Rev. Lucius C. Smith 777* (Gray Herb.); PUEBLA: Tehuacan, June, 1905, *C. A. Purpus 1236* (Mo. Bot. Gard., Field Mus. 192813, N. Y. Bot. Gard., Univ. Cal. 138091, Gray Herb.); Tlacuiloltepec, May, 1909, *C. A. Purpus 4065 (in part)* (Mo. Bot. Gard., N. Y. Bot. Gard., Field Mus. 276600, Gray Herb.); Tehuacan, Sept., 1911, *C. A. Purpus 5702* (Mo. Bot. Gard., Univ. Cal. 162034); Tehuacan, Aug., 1905, *J. N. Rose, Walter Hough & J. H. Painter 9967* (N. Y. Bot. Gard., U. S. Nat. Herb. 453462, Gray Herb.).

EXPLANATION OF PLATE

PLATE 1

Actinocheita filicina (DC.) Barkley

Reproduction natural size from *plate 189* of A. DeCandolle's 'Calques des Dessins, Flora du Mexique, de Moçino et Sessé.' The original is a blueprint of the duplicate copy of *plate 189* of Moçino and Sessé given to Dr. Asa Gray by DeCandolle, and is listed in the "Enumeration d'après l'ordre des numéros" as "*Rhus filicina* 2. p. 67." As it is probable that the original material on which the species was founded no longer exists, *Actinocheita filicina* must rest on the Moçino and Sessé plate.



189.

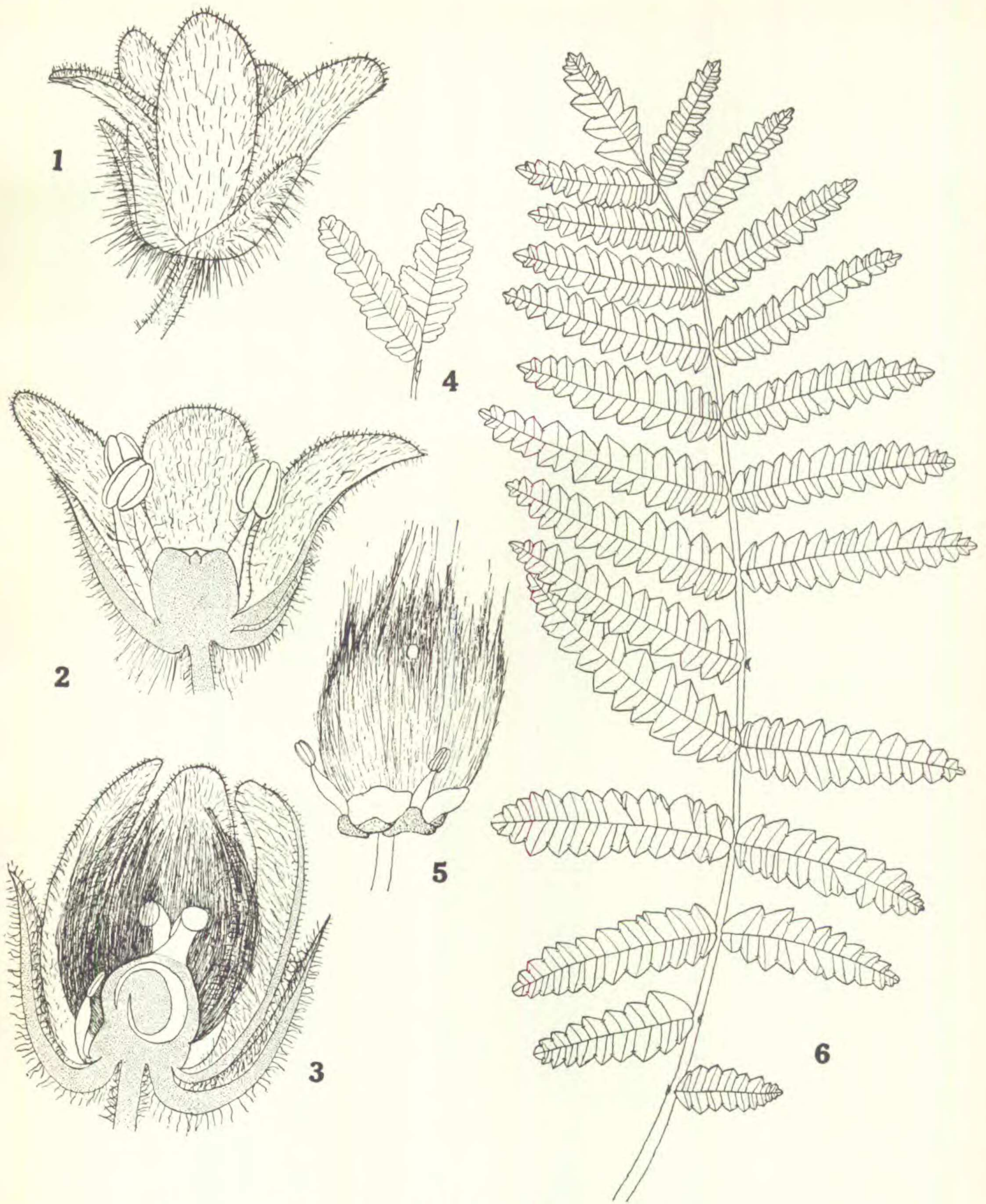


EXPLANATION OF PLATE

PLATE 2

Actinocheita flicina (DC.) Barkley

- Fig. 1. Flower, X 14, from *Purpus 1236*.
Fig. 2. Longitudinal section through a staminate flower, X 14, from *Purpus 1236*.
Fig. 3. Longitudinal section through pistillate flower, X 14, from *Pringle 4752*.
Fig. 4. Terminal portion of a leaf, X .7, from *Pringle 4752*.
Fig. 5. Pistillate flower with petals and sepals removed, X 14, from *Pringle 4752*.
Fig. 6. Leaf, X .7, from *Pringle 9164*.



BARKLEY—ACTINOCHEITA FILICINA

EXPLANATION OF PLATE

PLATE 3

Actinocheita filicina (DC.) Barkley

From specimen collected by *C. G. Pringle*, 4752, on limestone ledges, in Tomellin Canyon, Oaxaca, Mexico, altitude 2,500 ft., July 31, 1894. This specimen is typical of the species.